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09/944,779	08/31/2001	Walter J. Sherwood JR.	STAR-0003	2302

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EXAMINER	
TRAN, HIEN THI	

ART UNIT	PAPER NUMBER
1764	

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/944,779	SHERWOOD, WALTER J.	
	Examiner	Art Unit	
	Hien Tran	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 October 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) *1-8 and 26* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9-25, 27-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-30* are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 January 2002* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group II, claims 9-25, 27-30, in the reply filed on 10/27/04 is acknowledged. The traversal is on the ground(s) that examining both groups will not impose a serious burden on the examiner. This is not true because the search for group I is not the same as that of group II as evidenced by different class/subclass as set forth in the previous office action.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 1-8 and 26 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 10/27/04.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "82" (page 14, lines 3, 4) and "86" (page 14, line 16 and page 15, line 1) have both been used to designate the scrubber. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the

examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "222A, 222B, 220B" (Fig. 10). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to because in Fig. 1, "44" should be pointed to the stop cap, not to the plug 48. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be

necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6. The drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the drawings to comply with CFR 1.84(p)(5), e.g. they should include the reference sign(s) mentioned in the specification and vice versa.

Specification

7. The disclosure is objected to because of the following informalities:

On page 10, line 2 --cordierite-- is misspelled.

On page 13, line 11 "76" should be changed to --80-- (note line 10).

On page 14, line 16 and page 15, line 1 "86" should be changed to --82-- (note Fig. 6 and page 14, lines 3-4).

Appropriate correction is required.

8. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

9. Claim 29 is objected to because of the following informalities:

In claim 29, lines 9 and 11 "stage" should be deleted (note line 5).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 9-25, 27-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 9, lines 4-5 it is unclear as to how the particulate filter unit and the one or more combination particulate and nitrogen oxide filter units are related to the one or more attachable units set forth in line 2.

In claim 20, line 2 "the second stage unit housing" has no clear antecedent basis.

In claim 24, line 2 it is unclear as to how the one or more attachable units is related to other elements set forth in lines 4-19 of the system. See claim 29 likewise.

In claim 27, line 4 it is unclear as to how the filter components are related to the means for filtering particulates and means for filtering particulates and nitrogen oxide set forth in lines 5-6.

In claim 29, line 24 "the nitrogen oxide filter" has no clear antecedent basis.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 9-10, 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Ban et al (5,961,931).

Ban et al discloses a filter unit comprising a housing, a plurality of concentrically arranged filters within the housing, a plurality of first passages passing adjacent to at least one filter and opened to a first end of the housing, a plurality of second passages passing adjacent at least one filter and opened to a second end of the housing, whereby exhaust gases passes through a particulate filter as the exhaust gas moves from the first passages to the second passages (Figs. 5A-C; 7, 22A-B, col. 8, lines 24-29). The filters of Ban et al encompass both particulate filter unit and combined particulate and nitrogen filter units 9

Instant claims 9-10, 27 structurally read on the apparatus of Ban et al.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

16. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ban et al (5,961,931) in view of Chiang et al (6,056,796).

The apparatus of Ban et al is substantially the same as that of the instant claims, but fails to discloses the specific material as claimed.

However, Chiang et al discloses that the ceramic filter may be made by woven technique, and is coated with a component, such as silicon carbide, alumina, etc. (col. 2, line 9; col. 4, lines 66-67; col. 5, lines 1-34; col. 8, lines 30-45).

It would have been an obvious matter of design choice to one having ordinary skill in the art to select an appropriate material for the filters, such as the one taught by Chiang et al in the apparatus of Ban et al, since such a modification would have involved a mere substitution of known equivalent. A substitution of known equivalent material is generally recognized as being within the level of ordinary skill in the art. *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958).

17. Claims 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ban et al (5,961,931) in view of Chiang et al (6,056,796) or Rao et al (4,544,388).

Chiang et al discloses provision of a regeneration means for the filter, such as high pressure gas. Rao discloses provision of regeneration means for the filter, such as heater.

It would have been obvious to one having ordinary skill in the art to select an appropriate means for regenerating the filter as taught by Chiang et al or Rao et al, to reuse the filter as use of such is conventional in the art and no cause for patentability here.

Double Patenting

18. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

19. Claims 9, 13-23, 27-28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-28 of U.S. Patent No. 6,471,918. Although the conflicting claims are not identical, they are not patentably distinct from each other because they are directed to the same conceptual invention. The plurality of attachable filters of US 6,471,918 encompass the particulate filter unit and one or more combination particulate and nitrogen oxide filter units of the instant claims.

20. Claims 10-12, 24-25, 29-30 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-28 of U.S. Patent No. 6,471,918 in view of Ban et al (5,961,931).

The apparatus of US 6,471,918 is substantially the same as that of the instant claim, but fails to disclose the specific structure of the particulate filter unit.

However, Ban et al discloses a filter unit comprising a housing, a plurality of concentrically arranged particulate filters within the housing, a plurality of first passages passing adjacent to at least one filter and opened to a first end of the housing, a plurality of second

passages passing adjacent at least one filter and opened to a second end of the housing, whereby exhaust gases passes through a particulate filter as the exhaust gas moves from the first passages to the second passages (Figs. 5A-C; 22A-B).

It would have been obvious to one having ordinary skill in the art to construct at least one of the filters in the apparatus of US 6,471,918 as taught by Ban et al, as such is conventional in the art and no cause for patentability here.

Conclusion

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hien Tran

Hien Tran
Primary Examiner
Art Unit 1764

HT